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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,105	04/23/2001	Jean-Claude Chevet	PF980073	2816

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PATENT OPERATIONS
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EXAMINER

SHAPIRO, LEONID

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/830,105

Applicant(s)

CHEVET ET AL.

Examiner

Leonid Shapiro

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1- 13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a). Claims 1, 4, 7 recited "this column", "this word", "this bit", "this difference", "its state", which is not clear.

It is not clear what "this column", "this word", "this bit", "this difference", "its state" means and how it is related to the particular column, word, bit, difference or state?

- b). Claims 1, 4, 7 and 13 recited "n", which is not clear.

It is not clear what value "n" can have? Since m being between 2 and n, as recited in above mentioned claims, could n have value of integer 2?

- c). Claims 1, 4, 7 recited "each bit triggering or not", which is not clear.

It is not clear what "each bit triggering or not" means?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa.(US Patent No. 5,475,448) in view of Van Dijk (US Patent No. 6,424,325 B1) and Nakamura (US Patent No. 6,597,334 B1).

As to claim 1, Saegusa teaches a method for addressing cells (cells in reference arranged at intersection of A1-Aj and S1-Sk lines, See Fig. 1) arranged as a matrix array (See Fig. 1. items 2, 10, Col. 2, Lines 48-54), each cell being situated at intersection of a line (See Fig. 1, items S-Sk) and a column (See Fig. items A1-Aj), the array having line inputs (See Fig. 1, items 13-14, Col. 2, Lines 54-62) and column inputs for displaying grey levels (See Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40 and from Col. 2, Line 66 to Col. 3, Line 9) defined video words making up a digital video signal (See Col. 2, Lines 9-14) and defining an image (See Fig. 1, items 3, 8, Col. 2, Lines 4-34), the column inputs each receiving a control word for this column corresponding to the video word (in the reference equivalent to 8-bit pixel data) (See Fig. 1, items 1, 3, Col. 2, Lines 9-12) relating , for this column, to an addressed line (See Fig. 1, items 11, 13-14, Col. 2, Lines 34-40 and 48-59), this word being composed of n bits transmitted sequentially, each sequence corresponding to a sub-scan (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 3), each bit triggering or not, according to its state, the illumination of the cell of the addressed line and of the column receiving the control word (see Fig. 1, items 2, 9, 11, Col. 2, Lines 34-40), for a time proportional to the weight of this bit in the word (See Col. 2, Lines 9-14 and from Col. 2, Line 66 to Col. 3, Line 9).

Saegusa does not show a different coding of the column control words is performed depending on whether the word relates to an even or odd line, the difference consisting in the fact that at least m successive bits of specified ranks, m between 2 and n , have different weight from one control word to the other, the sum of the weights of these bits remaining identical from one control word to the other.

Van Dijk teaches a different coding of the column control words is performed depending on whether the word relates to an even or odd line (See Figs. 6A, 6B, items $m-1$, m , 0-5, Col. 8, Lines 29-52), the difference consisting in the fact that at least m (in the reference $m=n$) successive bits of specified ranks, m between 2 and n , have different weight from one control word to the other (See Figs. 6A, 6B, items $m-1$, m , 0-5, Col. 8, Lines 29-52), the sum of the weights of these bits (for $m=n$) remaining identical from one control word to the other (See Fig. 6A. 6B, length of items $5+4+3+2+1+0 =$ length of items $0+2+1+5+4+3$) (See Figs. 6A, 6B, items $m-1$, m , 0-5, from Col. 8, Line 29 to Col. 9, Line 43).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide a different coding of the column control words in the Saegusa system in view of teaching of Van Dijk in order to reduce artifacts (See Col. 2, Lines 24-25 in the Van Dijk reference).

Van Dijk and the Saegusa do not show writing instants which are substantially different from one line to the next.

Nakamura teaches writing instants which are substantially different from one line to the next (See Fig. 3, items Pw, Col. 3, Lines 32-39).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide different writing instants in Van Dijk and the Saegusa system in view of teaching of Nakamura in order to provide stable driving method (See Col. 3, Lines 61-63 in the Nakamura reference).

As to claims 2, 12, Van Dijk teaching writing is simultaneous on two successive lines for at least the first bit of the m successive bits of a control word relating to one of the two lines (See Fig. 6A, item Tp, b5 and Fig. 6B, item Tp, b0).

As to claim 3, Saegusa teaching at least two successive lines are selected simultaneously for at least one of the bits of a specified rank, which has an identical weight from one control word to the other (See Fig. 2, items ODD ROW – W 32, EVEN ROW – W 32).

As to claim 9, Van Dijk teaches cells of plasma panel and that the selection causes the illumination of the cell (see Fig. 1, item c, Col. 1, Lines 31-60).

As to claim 11, Saegusa teaches a video processing circuit for processing the video data received (See Fig. 1, items 3-5, Col. 2, Lines 2-47), a correspondence memory for transcoding this data, a video memory for storing transcoded data (See Fig. 1, items 7-8), the video memory being linked to column supply circuits for controlling the column addressing of the plasma panel on the basis of column control words (See Fig. 1, items 8-9, Col. 2, Lines 2-47), a control circuit for the line supply circuit linked to the video processing circuit so as to select the lines (See Fig. 1, items 13-14, Col. 2, Lines 41-48), and Van Dijk teaches a different coding of the column control words is performed the video processing and transcoding circuits depending on whether the

word relates to an even or odd line (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the difference consisting in the fact that at least m (in the reference $m=n$) successive bits of specified ranks, m between 2 and n, have different weight from one control word to the other (See Figs. 6A, 6B, items m-1, m, 0-5, Col. 8, Lines 29-52), the sum of the weights of these bits (for $m=n$) remaining identical from one control word to the other (See Fig. 6A, 6B, length of items $5+4+3+2+1+0 =$ length of items $0+2+1+5+4+3$) (See Figs. 6A, 6B, items m-1, m, 0-5).

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Inoue et al. (US Patent No. 5,646,646).

Saegusa, Nakamura and Van Dijk do not show the zones or images with strong vertical transition, the other zones utilizing sub-scans corresponding to all identical weights from one line to another.

Inoue et al. teaches the scroll image partial writing could be implemented before no change in image data (See Fig. 9D, items 112, 114, Col. 14, Lines 5-26).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide partial writing in the Saegusa, Nakamura and Van Dijk system in view of teaching of Inoue et al. in order to reduce artifacts.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Sakoda et al. (US Patent No. 5,559,954).

Saegusa, Nakamura and Van Dijk do not show value of m (number of bits) is dependent on the vertical resolution.

Sakoda et al. teaches number of bits is dependent on the vertical resolution (See Fig. 4c, Col. 8, Lines 61-68).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide number of bits is dependent on the vertical resolution in the Saegusa, Nakamura and Van Dijk system in view of teaching of Sakoda et al. in order to reduce artifacts.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa, Nakamura and Van Dijk as applied to claim 1 above, and further in view of Nelson (US Patent No. 5,771,060).

Saegusa, Nakamura and Van Dijk do not show cells are micromirrors of a micromirror circuit.

Nelson teaches cells are micromirrors of a micromirror circuit (See Fig. 1a, item 1 Col. 6, Lines 31-51).

It would have been obvious to one of ordinary skill in the art at the time of invention to provide micromirrors in the Saegusa, Nakamura and Van Dijk system in view of teaching of Nelson in order to increase the range of applications.

Response to Amendment

6. Applicant's arguments, filed on 10.27.05, with respect to the rejection(s) of claim(s) 1-3, 5-6, 8-12 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakamura.

Telephone inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

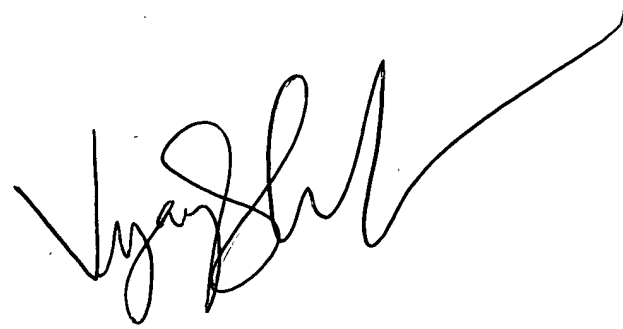
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/830,105
Art Unit: 2673

Page 9

Ls 04.19.05

A handwritten signature in black ink, appearing to read 'Vijay Shankar', with a long horizontal stroke extending to the right.

**VIJAY SHANKAR
PRIMARY EXAMINER**